

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE MODIFICATION AND INSTALLATION OF TRAFFIC SIGNALS AT THE INTERSECTION OF MD 140 AT SULLIVAN RD IN CARROLL COUNTY. MD 140 IS ASSUMED TO RUN IN AN EAST/WEST DIRECTION.

INTERSECTION OPERATION

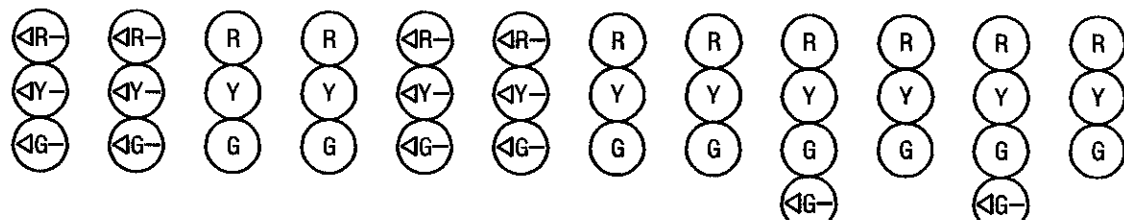
NORMAL OPERATION
THE INTERSECTION WILL OPERATE IN A NEMA-SIX-PHASE SEMIACTUATED MODE. THE MOVEMENTS ON MD 140 WILL OPERATE CONCURRENTLY. THE MOVEMENTS ON SULLIVAN RD WILL OPERATE IN A SPLIT SIDE STREET OPERATION.

SPECIAL NOTE

ALL UTILITIES SHOWN ON THESE PLANS ARE SCHEMATIC AND ARE NOT TO BE CONSIDERED COMPLETE BECAUSE THESE UTILITIES MAY BE MODIFIED PRIOR TO AND DURING CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING ALL UTILITY COMPANIES PRIOR TO CONSTRUCTION SO THAT ALL UTILITIES MAY BE LOCATED IN THE FIELD. IF THE CONTRACTOR PERCEIVES THAT A CONFLICT BETWEEN THE UTILITIES AND THE TRAFFIC SIGNAL EQUIPMENT WILL OCCUR, THE CONTRACTOR SHALL NOTIFY THE PROJECT MANAGER IMMEDIATELY.

PHASE CHART (TEMPORARY)

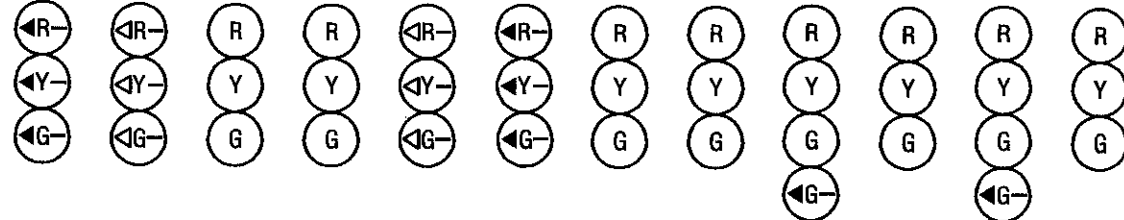
1A 2 3 4 5 6A 7A 8A 9A 10A 11A 12A



PHASE 1+5	◄R—	◄G—	R	R	◄G—	◄G—	R	R	R	R	R	R	
1+5 CHANGE	◄Y—	◄Y—	R	R	◄Y—	◄Y—	R	R	R	R	R	R	↔
PHASE 2+6	◄R—	◄R—	G	G	◄R—	◄R—	G	G	R	R	R	R	↔
2+6 CHANGE	◄R—	◄R—	Y	Y	◄R—	◄R—	Y	Y	R	R	R	R	↔
PHASE 3	◄R—	◄R—	R	R	◄R—	◄R—	R	R	◄G—	G	R	R	↕
3 CHANGE	◄R—	◄R—	R	R	◄R—	◄R—	R	R	Y	Y	Y	R	↕
PHASE 4	◄R—	◄R—	R	R	◄R—	◄R—	R	R	R	◄G—	G	G	↕
4 CHANGE	◄R—	◄R—	R	R	◄R—	◄R—	R	R	R	Y	Y	Y	↕
FLASHING OPERATION	FL ◄R	FL ◄R	FL Y	FL Y	FL ◄R	FL ◄R	FL Y	FL Y	FL R	FL R	FL R	FL R	↕

PHASE CHART (ULTIMATE)

1 2 3 4 5 6 7 8 9 10 11 12



PHASE 1+5	◄G—	◄G—	R	R	◄G—	◄G—	R	R	R	R	R	R	
1+5 CHANGE	◄Y—	◄Y—	R	R	◄Y—	◄Y—	R	R	R	R	R	R	↔
PHASE 2+6	◄R—	◄R—	G	G	◄R—	◄R—	G	G	R	R	R	R	↔
2+6 CHANGE	◄R—	◄R—	Y	Y	◄R—	◄R—	Y	Y	R	R	R	R	↔
PHASE 3	◄R—	◄R—	R	R	◄R—	◄R—	R	R	◄G—	G	R	R	↕
3 CHANGE	◄R—	◄R—	R	R	◄R—	◄R—	R	R	Y	Y	Y	R	↕
PHASE 4	◄R—	◄R—	R	R	◄R—	◄R—	R	R	R	◄G—	G	G	↕
4 CHANGE	◄R—	◄R—	R	R	◄R—	◄R—	R	R	R	Y	Y	Y	↕
FLASHING OPERATION	FL ◄R	FL ◄R	FL Y	FL Y	FL ◄R	FL ◄R	FL Y	FL Y	FL R	FL R	FL R	FL R	↕

EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY SHA

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
973023	813	74 S.F.	SHEET ALUMINUM SIGNS: -3 EA. R3-6L (LANE USE LEFT THRU) 30 IN. X 36 IN. - MAST ARM MOUNT -1 EA. R3-5R (LANE USE RIGHT ONLY) 30 IN. X 36 IN. - MAST ARM MOUNT -2 EA. D3-2 (STREET NAME) VAR. X 16 IN. DUAL FACED - MAST ARM MOUNT -2 EA. D3-2 (STREET NAME) VAR. X 32 IN. SINGLE FACED - MAST ARM MOUNT

PROJECT CONTACTS

THE CONTACT PERSONS FOR DISTRICT #7 ARE AS FOLLOWS:

RICHARD DAFF SR, CHIEF
TRAFFIC OPERATIONS DIVISION
PHONE: 410-787-7630

MARK FLACK
ASSISTANT DISTRICT ENGINEER-CONSTRUCTION
PHONE: 301-624-8201

DAVE COYNE
ASSISTANT DISTRICT ENGINEER-MAINTENANCE
PHONE: 301-624-8106

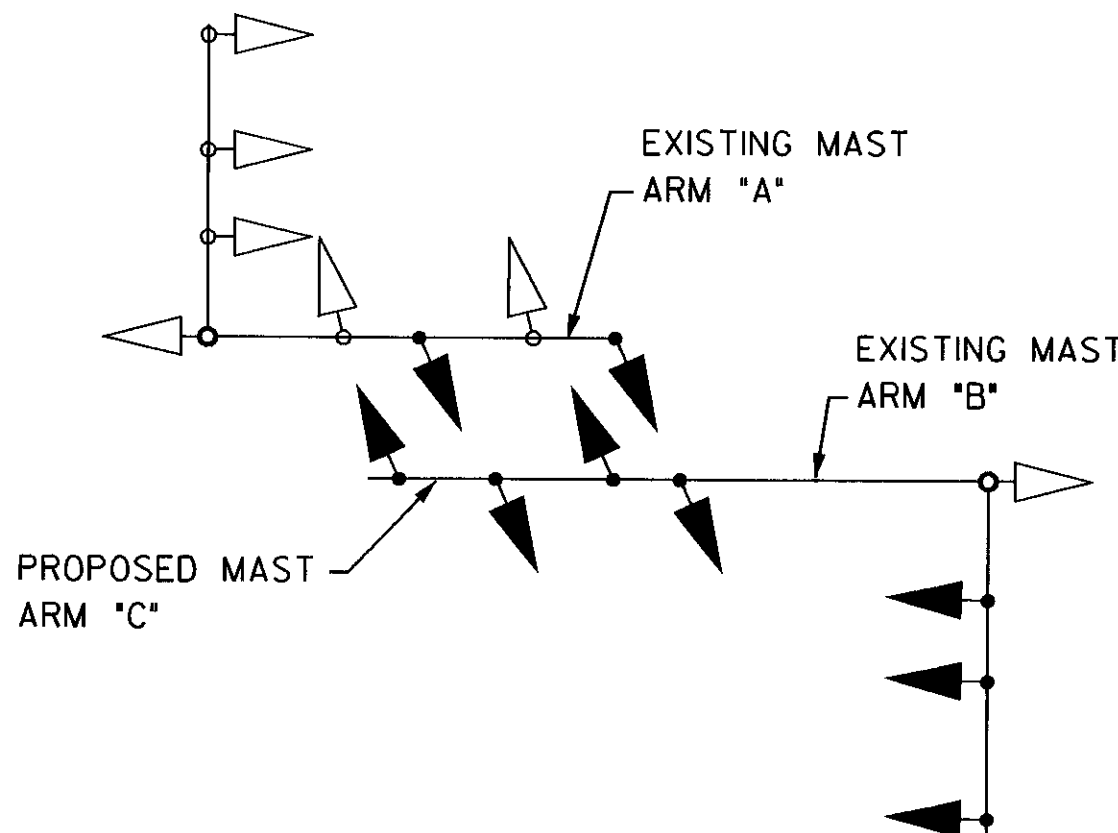
ED RODENHIZER, CHIEF
SIGNAL OPERATIONS SECTION
PHONE: 410-787-7652

JOHN CONCANNON
ASSISTANT DISTRICT ENGINEER-TRAFFIC
PHONE: 301-624-8141

JIM BUCKALEW
DISTRICT UTILITIES ENGINEER
PHONE: 301-624-8110

SEQUENCE OF CONSTRUCTION

1. THE CONTRACTOR SHALL INSTALL TEMPORARY SIGNAL HEADS AND SIGN ON EXISTING MAST ARM (EXISTING MAST ARM "A").
2. THE CONTRACTOR SHALL REMOVE 60 FT. MAST ARM (EXISTING MAST ARM "B") SIGNAL HEADS, AND SIGNS.
3. THE CONTRACTOR SHALL INSTALL THE 70 FT. MAST ARM ON EXISTING POLE. WITH THE ULTIMATE SIGNAL HEADS AND SIGNS WITH ALL NECESSARY WIRING (PROPOSED MAST ARM "C").
4. THE CONTRACTOR SHALL INSTALL THE PROPOSED 27 FT. STEEL POLE, 38 FT. MAST ARM SIGNALS, AND SIGNS IN THE MEDIAN.
5. THE CONTRACTOR SHALL REMOVE EXISTING SIGNAL POLE FOR SULLIVAN RD.



EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR

CAT CODE NUMBER	SPEC. SECTION	QUANTITY	DESCRIPTION
120662	104	65 L.F.	REMOVAL OF EXISTING PAVEMENT LINE MARKINGS - ANY WIDTH
203030	205	1 C.Y.	TEST PIT EXCAVATION
585624	556	90 L.F.	24 IN. HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS
801004	801	3 C.Y.	CONCRETE FOR SIGNAL FOUNDATION
802501	805	80 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
805115	805	170 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
805118	805	75 L.F.	4 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
805135	805	50 L.F.	3 IN. SCHEDULE 80 RIGID PVC CONDUIT-TRENCHED
805160	805	50 L.F.	1 IN. LIQUID TIGHT FLEXIBLE NON METALLIC CONDUIT FOR DETECTOR SLEEVE
810605	810	3 EA.	NONINVASIVE DETECTOR, 1000 FT. LEAD IN CABLE
811001	811	3 EA.	ELECTRICAL HANDHOLE
813006	813	6 S.F.	RELOCATE SIGNS FROM EXISTING OVERHEAD STRUCTURES
813015	813	74 S.F.	INSTALL OVERHEAD SIGN
818030	818	1 EA.	STEEL POLE WITH A SINGLE 38 FT. MAST ARM
831010	806	1 EA.	250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
837001	804	1 EA.	GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
860265	814	3 EA.	RELOCATE EXISTING SIGNAL HEAD
860272	814	33 EA.	12 IN. VEHICULAR TRAFFIC SIGNAL HEAD SECTION
861104	810	115 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED)
861107	810	1900 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
861108	810	950 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)
861116	810	150 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG)
862101	805	850 L.F.	LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 AWG)
862102	805	275 L.F.	SAW CUT FOR SIGNAL (LOOP DETECTOR)
866104	818	1 EA.	20 FT. LIGHTING ARM ON TRAFFIC SIGNAL STRUCTURE
800000	818	1 EA.	70 FT. MAST ARM
800000	XXX	1 L.S.	REMOVE AND DISPOSE OF EXISTING SIGNAL EQUIPMENT

EQUIPMENT LIST "C"

C. ALL REMOVED SIGNAL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

ADDENDUM NO. 2
REPLACEMENT SHEET
05/22/03



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION SHEET
REPLACEMENT BRIDGE NO. 6032 ON MD 140 OVER MD 27, WEST BRANCH AND MD MIDLAND RAILROAD AND BRIDGE NO. 6041 ON MD 140 OVER MD 97 MD 140 AT SULLIVAN ROAD - ULTIMATE

DRAWN BY: MB	F.A.P. NO. SEE TITLE SHEET	TS NO. 1577-E	SHEET NO.
CHECKED BY: RF	S.H.A. NO. CL8445170	T.I.M.S. NO.	
SCALE: NONE	COUNTY: CARROLL		
DATE: APRIL 2003	LOG MILE:		242 OF 282

THE WILSON T. BALLARD CO.
CONSULTING ENGINEERS
OWINGS MILLS, MARYLAND